

to Roberts (hereinafter "*Roberts*") in view of U.S. Patent No. 6,081,254 to Tanaka et al. (hereinafter "*Tanaka*"). Claims 9, 13, 16 and 17 have been cancelled.

By this paper and in view of the following remarks, Applicant respectfully contends that each rejection of claims 5-8 and 12 has been fully replied to and traversed. Applicant respectfully contends that her application is in condition for allowance, which allowance is respectfully requested.

Applicant's invention controls the contrast of a vehicle heads-up display (HUD) in response to an image of the exterior environment approaching the moving vehicle. The color and patterns or structural features of the displayed image are controlled so that the image displayed is in contrast both in color and/or pattern versus the external environment.

The Examiner asserts that such an invention is unpatentable over the combination of *Roberts* and *Tanaka*. Briefly, the Examiner relies *inter alia* upon *Roberts* to teach a heads-up display system for moving vehicles as defined by all the limitations of claim 5 except for:

a control coupled to the optical detector for controlling the contrast of the heads-up display in response to the environmental image approaching the moving vehicle.

(Underlining added.)

To supply this void in *Roberts*, the Examiner relies on *Tanaka* to teach Applicant's "arrangement for controlling the contrast of the heads-up display to an environmental image approaching the moving vehicle."

In response, Applicant first respectfully contends, absent improper hindsight reasoning derived from the reading of Applicant's application, that there is no motivation to combine *Roberts* and *Tanaka*, and that even if the references were combined, neither reference taken alone or in combination teaches each element of Applicant's claimed invention.

*Roberts* discloses an instrument display apparatus which produces a reflected image of an instrument onto a windscreen that an operator may view while viewing out through the windscreen. (Col. 1, ll. 10 - 15.) The instrument display or cluster which is indicated in Figure 1 may be artificially illuminated by any back light, side or front light which operates to augment, supplement or enhance the reflective ambient light. (Col. 5, ll. 9 - 13.) The intensity of the artificial lighting may be selectively controlled by a manually adjustable rheostat or potentiometer and/or automatically by a photosensor, which can detect ambient light lighting conditions and thereafter increase or decrease the intensity of the artificial lighting if the ambient lighting conditions warrant. (Col. 5, ll. 17 - 25.) A camera may be used to view the displayed image as if the image was viewed by the driver. (Col. 6, ll. 3-15.) Simply stated, *Roberts* discloses a display that is produced by illuminating an indicator and projecting the image therein upon the windshield. Only the intensity of light projected by the indicator is transmitted to the tinted windshield and varied in accordance with ambient light. *Roberts* does not provide any motivation for "controlling the contrast of the heads-up display in response to the environmental image approaching the moving vehicle."

*Tanaka* discloses a color correction system that can realize faithful color reproduction. (Col. 1, lines 5-10.) *Tanaka* faithfully corrects color changes by reproducing each color within a predetermined color reproduction range of a referenced color chip (Col. 7, ll. 5-14.) The system operates by having a display signal inputted from a terminal converted by a color converter and then supplied to a display. The color converter ensures faithful color reproduction of the display by having a controller that controls a color conversion characteristic of the converter. (Col. 6, ll. 3-7.) The conversion characteristic of the converter is corrected so as to make the output of a color sensor that senses an image of the display and the referenced value output of the color data storage chip equal to each other. (Col. 6, ll. 32-35.) A control means compares the image color detected by the detection means with the color data and controls an output signal of the conversion means so as to make them equal to each other. (Col. 3, ll. 63-67.) Simply stated, *Tanaka* relates to an invention that analyzes a displayed image over a period of time with a sensor to determine whether the color of the displayed image is equal to a predetermined color. If the color is not equal to the desired color, a controller directs a converter to correct the color for faithful color

reproduction of the desired color. In sum, *Tanaka* seeks to match colors, whereas Applicant seeks to contrast displays.

Moreover, *Roberts* provides no teaching or suggestion that there is any need to correct or match colors as taught by *Tanaka* and *Tanaka* provides no teaching or suggestion for providing a reflected image on a windshield as taught by *Roberts*. As such, neither reference provides any motivation for their combination absent improper hindsight derived from reading Applicant's application.

More particularly, Applicant respectfully contends that neither reference teaches "an arrangement for controlling the contrast of the heads-up display to an environmental image approaching the moving vehicle wherein the arrangement includes an optical detector for capturing the image of the environment approaching the vehicle and a control coupled to the optical detector for controlling the contrasts of the heads-up display in response to the environmental image approaching the moving vehicle," as recited by Applicant's in claim 5.

The Examiner concedes that *Roberts* fails to teach "controlling the contrast" and since *Tanaka* only teaches matching, rather than contrasting colors with respect to a displayed image of "an environment approaching a moving vehicle," neither reference can teach Applicant's claimed invention. Applicant also contends that *Roberts* fails to teach an "optical detector for capturing the image of the environment approaching the vehicle." *Roberts* only teaches that a camera may be used to view the displayed image as the image is viewed by the driver. Such a teaching cannot teach such an "optical detector" when claimed as "coupled" to a "control . . . for controlling the contrast of the heads-up display."

As such, neither reference teaches the claim 5 "arrangement" or claim 12 "method" for controlling the contrast of the heads-up display to an environmental image approaching the moving vehicle wherein the arrangement (or step) (is) for "capturing the image of the environment approaching the moving vehicle and "for controlling the contrast of the heads-up display in response to the environmental image" approaching the moving vehicle (claim 5) or captured (claim 12).

Since claim 5 is believed to be patentable in view of *Roberts* and *Tanaka* taken alone or in combination, Applicant contends that claims 6-8, which depend from claim 5, are patentable for at least the same reasons that claim 5 is patentable. Moreover, and without conceding the Examiner's position, Applicant contends that claims 6-8 recite further limitations, in addition to the limitations of claim 5, which render these claims additionally patentable.

With particular respect to the method, claim 12 recites steps implementing the system of claim 5. As before, the Examiner concedes that *Roberts* fails to teach "controlling the contrast." And since *Tanaka* only teaches matching colors rather than contrasting colors as Applicant teaches, the combination of *Roberts* and *Tanaka* fails to meet the limitation in claim 12 of:

"controlling the contrast of the heads-up display to an environmental image approaching the moving vehicle wherein the step of controlling includes the step of capturing the image of the environment approaching the moving vehicle and controlling the contrast of the heads-up display in response to the environmental image captured."

Consequently, and in view of the foregoing, Applicant respectfully contends that each rejection has been fully replied to and traversed. Applicant respectfully contends that the application is in condition for allowance, which allowance is respectfully requested.

Respectfully submitted,

**Robin M. Miller**

By 

Frederick M. Ritchie

Reg. No. 18,669

Attorney for Applicant

Date: April 24, 2001

**BROOKS & KUSHMAN P.C.**  
1000 Town Center, 22nd Floor  
Southfield, MI 48075  
Phone: 248-358-4400  
Fax: 248-358-3351

S/N: 09/090,071

Atty Dkt No. LUTA 0177 PUS

M:\clients\L\Luta\0177pus\amendment to o-a mailed 2-27-01.wpd

Sherry 3.12.01

Sherry 3.13.01

Sherry 3.20.01

Sherry 3.20.01

Sherry 3.20.01

Sherry 3.20.01

Kathy 4/06/01

sandy m. 4-24-01

rita 4-24-01